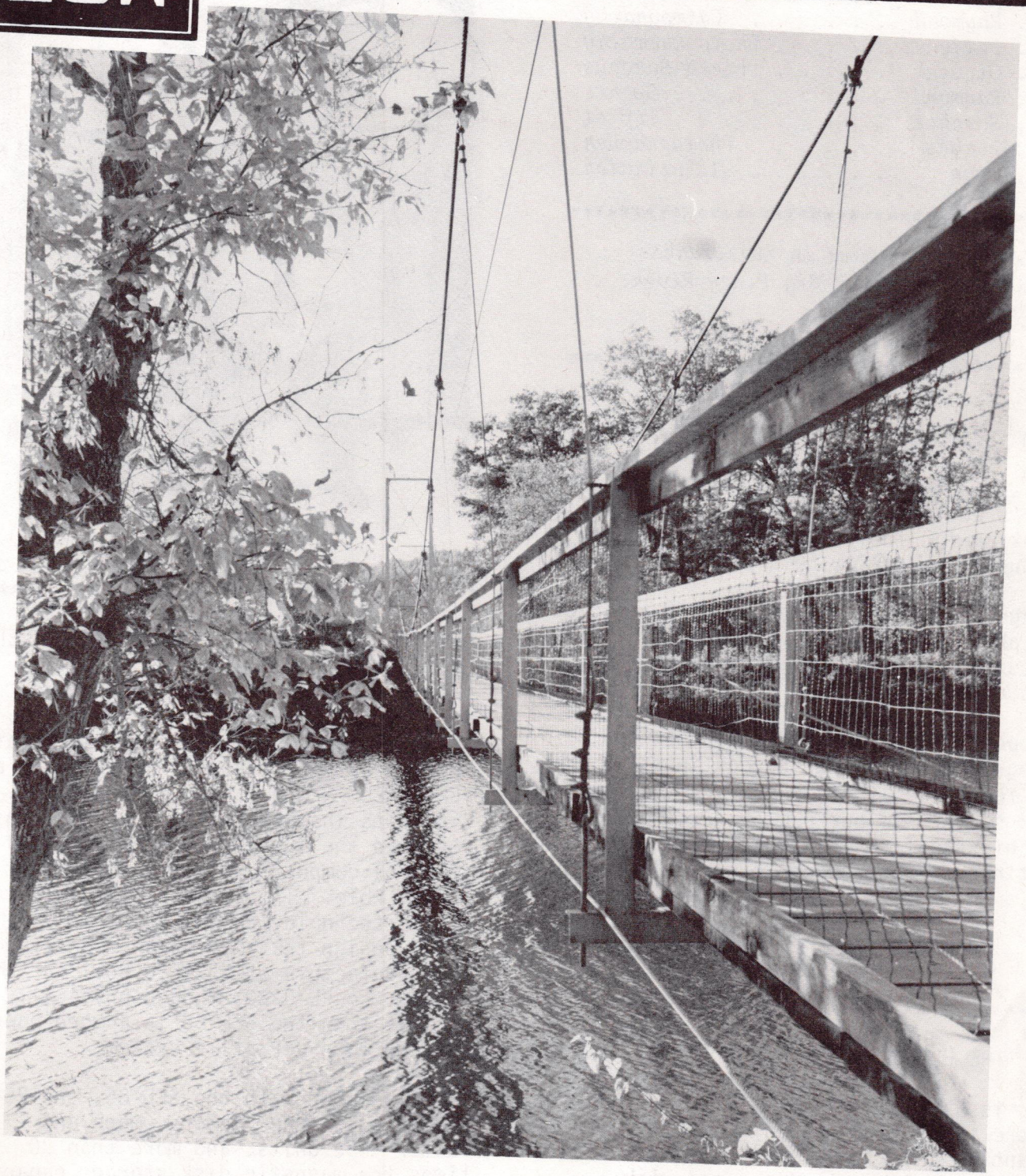
Topographically Speaking



SEPTEMBER-OCTOBER 1980

GEOLOGICAL SURVEY, NATIONAL MAPPING DIVISION
1400 Independence Road, Rolla, Missouri 65401

Vol. 4
No. 1

EDITORIAL STAFF

J. C. Earl . . . . . Editor
P. D. Lampert . . . . Associate Editor
B. A. Bauch . . . . Plans & Production
G. H. Raymond . . . . . Cartography
O. W. Detjen . . . . . Photogrammetry
A. V. Giebink . . . . . Field Surveys
G. H. Raymond . . . . . Sports
L. A. Sanchez . . . . . Typist
C. J. Forbes . . . . . Photographer
J. J. Wynn . . . . . Illustrator

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COVER PHOTO: Autumn in the Ozarks--footbridge over the Big Piney River. Photo by Jack Forbes.

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FROM THE EDITOR'S DESK

I wish to thank the members of the past year's editorial staff of Topographically Speaking for their dedication toward producing a quality newsletter.

Management and employee input of articles and photos was very appreciated by the editorial staff and enjoyed by our 600-plus readers.

I hope this marriage of employees and Topographically Speaking continues in the future as it has in the past. Extend your support to our new Editor, Jim Earl, and his staff so that we at MCMC can continue to be proud of our newsletter.

Bob Yenzer
Editor, FY 1980

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FROM THE EDITOR'S DESK

This issue of Topographically Speaking is the first issue by this year's staff. I want to thank Bob Yenzer and his staff for a job well done, and with your cooperation, we hope this newsletter will continue to be as interesting and as well written as in the past.

Jim Earl

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PERKIN-ELMER COMPUTER SYSTEM INSTALLED

by James Flaherty

A new computer system was installed at MCMC in July of 1980. The system is a PERKIN-ELMER model 3220 minicomputer. Since its installation the PE-3220 has replaced the System Engineering Model 86 (SEL 86) computer in its in-house computing role. The PE-3220 enbodies many of the technological advances in computer design that have been made since the manufacture of the SEL 86. For this reason the PE-3220, though physically smaller than the SEL 86 is a more powerful and more versatile system.

In comparison with the SEL 86, the PE-3220 has a longer memory, more and faster tape units, and more than 20 times the magnetic disk storage capacity. Probably the most important difference between the two systems from the standpoint of those using the new system is the support of CRT terminals.

There are currently six CRT terminals online to the PE-3220 system, one of which has the capability to display data in graphic form. The terminals provide the users of the PE-3220 system direct access to the system's resources.

Terminal users can create data files on the systems storage units. They can examine and modify the contents of their files and delete them when they are no longer needed. The system's tape units can also be controlled directly from the user terminals. Tapes can be positioned, examined and copied by the user with the only action required of the system operator being the mounting and dismounting of the tapes.

The distribution of system control to terminal users is highly advantageous particularly when coupled with the system's ability to execute more than one program at a time. The system can thus handle a much larger workload than it could if the operator was responsible for running every program.

As the need for data processing increases the PE-3220 system can be expanded to handle the increased workload. The PE-3220 should provide fast reliable data processing service for years to come.

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M&S DIGITAL DATA EDIT SYSTEM (DDES)

by Tom DiNardo & John Powell

The latest addition to the Mid-Continent Mapping Center's computer technology is computer graphics. The NMD recently purchased, primarily in support of its digital mapping program, three Digital Data Edit Systems (DDES) produced by M&S Computing, Inc. Each system includes three workstations all interfaced with a single control processing computer. The system software provides the capability to reformat data, add or delete points and lines, change the position of data, add or revise descriptive header data, collect data, and perform many other tasks required for digital data editing.

These systems have been installed in the three western mapping Centers and are undergoing general "shakedown" and acceptance.

The system hardware is configured about Digital Equipment Corporation's (DEC) PDP-11/70 minicomputer. With its proven reputation for reliability, the PDP-11/70 contains the essential elements necessary for interactive graphic applications. Presently equipped with an internal memory consisting of 512K bytes, the PDP-11/70 can be expanded in memory up to two full megabytes. Additional storage exists externally through the interfacing of two 300 megabyte disk drives. Nearly instantaneous access to this storage medium is possible through the use of M&S Computing's patented disk scanner-processor.

Other system peripherals include three 800/1600 bpi magnetic tape drives, a system teletype console, a programer's teletype, a hard copy unit, a high-speed line printer, and three graphic workstations. Included in each graphic workstation are such components as: dual 19 inch graphic display CRT's, a high resolution digitizing table, a 16 button digitizing cursor, a full function keyboard, and a floating command menu.

The software system includes a modular collection of components which execute under DEC's RSX-11 operating system. Indigenous to this system is the FORTRAN IV compiler, Macro-II assembler, and a wide range of utility programs. M&S furnished software includes the Interactive Graphic Software package and the Data Management and Retrevial System.

The M&S system at the Mid-Continent Mapping Center is presently undergoing performance evaluation, and acceptance testing. The first 4-6 months of operation of the system will be a familiarization and development period during which many different applications of the system will be tested and demonstrated. Alternative methods for

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implementing the various uses of the system will be extensively tested and evaluated during this development period.

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THERE'S A NEW PERFORMANCE APPRAISAL IN OUR LIVES

by Gary McKeown

October 1 brought more this year than just the start of the fiscal year. Beginning October 1, 1980, everyone in the Geological Survey including Merit Pay and Research personnel, will be evaluated under a new performance appraisal system.

The new system, developed by OPM as part of its implementation of the 1978 Civil Service Reform Act, contains provisions which are revolutionary to the area of performance appraisal. Among the more important provisions are:

1. Performance standards must be based on the requirements of employees positions.

2. Agencies shall encourage employee participation in standards settings.

3. Employees must be appraised on the basis of performance compared against these standards.

4. Performance standards shall be in writing.

5. Performance standards must be communicated to the employees at the beginning of the appraisal period.

These provisions, which were developed for use Government wide, were quickly augmented by Departmental Manual 370.430 sections 1.6C-D, which specifically defined the responsibilities of supervisors and employees alike under the new system. This manual specifies that supervisors are responsible for:

1. Assuring that employee position descriptions accurately reflect the duties and responsibilities assigned to all employees under their supervisors.

2. Determining and documenting in writing, with input from employees, the required elements, critical elements, and performance standards of positions under their supervisors.

3. Discussing those elements and standards with the employee at the beginning of the appraisal period and updating these elements and standards as needed during the appraisal period to reflect changes in position duties and responsibilities.

4. Keeping the employees advised during the appraisal period concerning their performance.

5. Appraising the employee's performance at the end of the appraisal period in accordance with previously established performance standards.

6. Recognizing and rewarding employees whose performance so warrants.

7. Assisting employees in improving marginal and unacceptable performance.

Employee responsibilities, as specified by 370.430, include:

1. Cooperating with the supervisor in the latter's development of required elements, critical elements and performance standards for their positions.

2. Advising their supervisors of any factors or circumstances that should be taken into account in appraising their performance.

3. Keeping supervisors advised of circumstances that may impact on or deter them from successful performance of the duties of their positions or meeting of assigned deadlines.

4. Participating in appraisal discussions of their performance.

5. Taking action to improve aspects of performance identified as need-improvement in appraisal discussions.

Along with the new system, came a new form. The performance appraisal form is comprised of three sections; job elements, performance standards, and progress review. The job elements section is used to list the critical and required elements of the job along with the important tasks associated with each element. The required elements of the job are those components which are important enough to warrant performance evaluation. A critical element is a component of the job which is sufficiently important to the overall success in the job that performance below the minimum standard results in unacceptable overall performance and requires some remedial action. Every job must have at least one critical element. Tasks are the principal steps involved in the job element.

An employees performance is appraised using three general categories of criteria: Quantity, Quality, and Timeliness. Performance for an element may be appraised using any one or more of these categories. The Quantity and Timeliness criteria are self-explanitory, i.e., quantity indicates how much of something is to be produced, while timeliness specifies that something will be produced by some set date. The Quality criteria, however, is more difficult to evaluate. As an aid to use in developing the standards, DM 370.430 offered the following suggestions:

1. The Standard should be stated concretely and specifically (avoid flowery language, both supervisor and employee should know that is expected to meet the standard).

2. The standard should be practical to measure (the standards should not be written in such a way as to require the supervisor to stand over the shoulder of the employee jotting down notes.)

3. The standard must be meaningful (the standards should assess what is important and relevant in the job and not encompass every minor aspect of the job).

4. The standard must be realistic and based on sound rationale (the standards must be realistic and achievable).

The last section, the progress review, is used for narrative statements and ratings at the end of the appraisal year, April 1 - March 31.

With the passing of October 1, we have entered into a new age of performance standards and appraisal. As with any new system, there will be some unanswered questions for awhile and there may be some growing pains. However, each of us should keep in mind the revolutionary nature of this system and recognize these important aspects of the system.

1. Active participation by both supervisor and employee are necessary for the system to work.

2. Performance standards are in written form and performance appraisal must be based on the standards.

3. Performance standards may be modified to meet realistic situations.

4. The system encourages open communication and cooperation between the supervisor and employee in the successful completion of a common goal.

In this article, I have attempted to communicate an overall view of the new performance appraisal system; including some of the reasons behind, and require-

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ments of the new system. In the future, as events develop, we will offer articles covering the developments and how they affect us here at MCMC.

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GEOGRAPHY'S TECHNICAL ASSISTANCE STAFF ASSIGNED to MCMC

by Eddie Schwertz

Effective October 1, 1980, the Geography Program's Program for Technical Assistance in the Analysis of Land Resources staff was assigned to MCMC as the Geographic Investigations Office, reporting directly to the Center Chief. The Program for Technical Assistance staff has been located at the Rolla Survey Center for the past two years and has been performing under a joint funding agreement between the Ozarks Regional Commission and USGS to provide technical assistance and training in the use of land use and land cover and associated maps, as well as geographic data handling procedures used in the Geographic Information Retrieval and Analysis System (GIRAS) computer software programs. These efforts have been directed primarily to the Ozarks States of Arkansas, Kansas, Louisiana, Missouri, and Oklahoma.

Included among the efforts undertaken during the two-year agreement were visits to over 150 Federal, State, and local agencies in the Ozarks States, 13 test and demonstration projects, over 20 hands-on workshops, a Program newsletter (The Technical Assistance Grapevine), and a Land Resources Data Applications Seminar held in St. Louis this past June.

With their reassignment to MCMC, the Geographic Investigations Office staff will now be available to serve all 14 MCMC States. The development of strategies for how this work arrangement can best be achieved is underway. Not only will this new arrangement benefit all State and local agencies in the MCMC region, but it will offer a better opportunity for interaction between these former Geography Program personnel and the rest of the National Mapping Division personnel.

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ASP NEWS

by Jerry Wagner

The Rolla Region of the American Society of Photogrammetry met Tuesday, August 26 at 8 p.m. in the main conference room.

President Karl Eissinger introduced George Loelkes who presented a talk discussing the use of ENVIRO-POD by the USGS.

ENVIRO-POD is a self-contained two-camera reconnaissance system that was developed by the Environment Protection Agency to document environmental problems such as oil spills, water pollution by industrial and municipal sewage dumping, etc. The system provides vertical and forward oblique photographs in either color or color infra-red. The photography, being of high resolution and taken with a short focal length (3 inches) panoramic camera is excellent for reconnaissance. However, it is impractical for standard mapping because of the large amount of distortion associated with short focal length panoramic camera. Each camera can be loaded with up to 300 frames of 70 mm film. Approximately 15 frames are used to check the operation of the cameras before and after takeoff.

The POD is divided into two sections, one for each camera and is designed to be transported by commercial airlines. It can be conveniently strapped to the bottom of a Cessna 172 (available at most airports) by four stell straps which connect to the seat rails of the aircraft without interfering with door closure. A minimum of two people are required to attach the POD to the aircraft. The cameras are controlled

George Loelkes answering questions concerning the ENVIRO-POD.

from the cockpit. Exposures can be made manually or automatically.

The USGS is the only agency outside of the EPA and its cooperating agencies that has an ENVIRO-POD. It has borrowed its POD from the EPA for use by the Office of Geographic Investigations and is one of the heaviest users of a POD out of 13 ENVIRO-POD that are presently in service. The photography obtained with the POD is used as part of the Land Use and Enviromental Keys developed in cooperation with EPA and as an interpretation tool for photointerpretors.

Film processing is supplied by EPA. After a project is completed, the camera is mailed to EPA. The developed film is usually returned within 10 days and the newly loaded cameras returned within 2 weeks.

The ENVIRO-POD, its cameras and examples of the photography were available for observation after the talk.

Refreshments were served after the meeting.

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So you think the price of beef is high today. During the Klondike gold rush 80 years ago, the first beefsteak to reach the Yukon Territory fetched $48 a pound.

****

ACSM NEWS

by Phil Lampert

On September 2, in the USGS conference room, Mr. Bob Ahland presented a slide illustrated lecture on Mt. St. Helens. Bob flew over the mountain with USGS Geologists and had some vivid pictures of the crater and environs. After a brief question and answer period, refreshments were served and the meeting adjourned.

On September 23, four of the Officers/Directors of the GRAS of the ACSM attended a joint session of the ACSM/ASP/AGU (American Geophysical Union) and IoN (Institute of Navigation). The session was held at the DMAAC Dining area in St. Louis. George May, former MCMC employee, graciously hosted the GRAS members during the social hour, when old acquaintences were renewed--and new ones made.

After an excellent dinner--Mr. Obie Williams, Deputy Director of Manpower for DMA, gave an informative talk, "Toward an all Digital Mapping System."

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CONTINUING EDUCATION AT MCMC

by Shelley Hood

If you've noticed any unusual equations and greek letters on the blackboards in the conference room, don't worry. Thirteen of your co-workers are enrolled in a five hour Algebra class, offered by UMR. Dr. Jack Scrivener of the UMR faculty is the teacher. Class meets for one hour each day, starting at 7:30 a.m., and will continue until December 15.

There are many pertinent college courses offered at UMR, Fort Leonard Wood, and by correspondence available to MCMC employees. Interested employees should check with the Staff Cartographer.

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SCHOOL TOURS *by Gary Raymond*

The opening of the 1980-81 school year has brought on an influx of visitors from area schools. Recent visitors have included students from University of Missouri at Columbia, Linn Technical School, Southwest Missouri State, University of Missouri at Rolla, and University of Oklahoma at Norman. The District Teachers also toured our facilities.

****

CARTO LOOKS BACK AT FY80

by W. Parkinson

After beginning FY 1980 rather ignominiously (zero quads shipped during first three work periods), the Branch of Cartography "got it in gear" to meet or surpass most of their fiscal year goals.

Note these production statistics:

Maps shipped for publication

New and revised maps	448
New orthophotomaps	26
Photorevised maps	291
IMS quads (1:100,000)	25
IMS Counties (1:100,000)	8
LU/LC quads (1:250,000)	7
DMA (1:50,000)	5
Orthophotoquads	28
Reprints	150
TOTAL	988

Other production of note

Orthophotoquads (advance print)	72
IMS Counties (SMS planimetric)	27
IMS quads (BLM edition)	21

Contracting provided a significant assist to 7.5-minute mapping during the year, as 336 quads partially or completely scribed were accepted from contractors compared to 213 equivalent quads scribed in-house. Contractors also did stick-up lettering on 81 quads and contour labels on 289 quads. The intermediate-scale program was helped by a contractor who scribed metric conversion contours on eight quads.

In addition to new and derivative map production, the Photoimagery and Preparation Sections processed countless orders for NCIC customers.

The Digital Line Graphics Group made tremendous strides after becoming an organizational entity early in the year. Through increased experience and innovative digitizing, processing, and editing procedures, their monthly production jumped from 20 quads during October 1979 to 120 quads in August 1980 (a 600-percent increase). The DLG Group archived a total of 643 quads for FY 80.

All in all, the Branch had a very good year. Way to go, Carto!

****

RETIREMENT SPREAD *by Allen Giebink*

Anyone who has gained weight this fiscal year, and as of yet has not found a good excuse, try this one. "But honey, everytime I turn around I'm eating another piece of retirement cake."

An unofficial personnel tally shows we had reason to eat goodies in honor of 38 retirees in fiscal year 1980. This large number has not been approached in recent years and it's not expected to be this high again in the near future. The combination of many employees eligible for retirement and the uncertainty of future retirement allowances was the primary cause for the mass exodus.

The year did not pass without acquiring some new faces around the Center. Twenty two employees were added to the permanent full-time side of the ledger, although a number of these additions were familiar faces previously working part-time. The year end total shows 316 permanent full-time employees working at the Mid-Continent Mapping Center. Some quick calculations show this number is down 16 from last years final figure. Take heart and look on the bright side, that's 16 less birthday doughnuts to add to the already burdensome "Retirement Spread."

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MCMC RETIREES

Zaddie B. Aston, Mid-Continent Mapping Center, retired on August 29, 1980, with over 31 years of Federal service.

Mrs. Aston began her Federal career as a Clerk-Typist with the Office of Price Administration, serving from 1942 to 1945. Zaddie began her career with the Geological Survey in 1952 when she accepted employment as a Cartographic Draftsman in the Branch of Cartography. She served her entire career in this Branch, retiring as a Cartographic Technician in a Compilation Unit.

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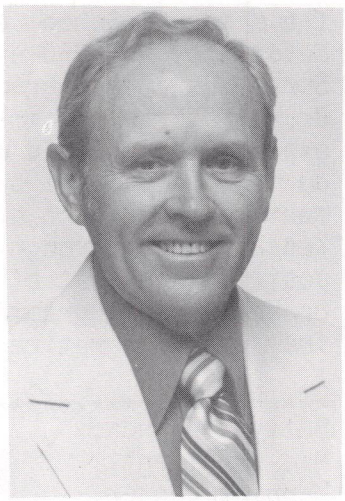

Quentin E. Baker, Mid-Continent Mapping Center, retired on August 29, 1980, with nearly 36 years of Federal service.

Mr. Baker began his career in 1942 as a Cartographic Aid with the Corps of Engineers. He served in the U.S. Army from 1943 to 1946, and after his discharge he returned to the Corps of Engineers. He started his Geological Survey career in 1949 as a Photogrammetrist in the Branch of Photogrammetry. Quentin's career has been marked by extensive experience in the Branches of Photogrammetry and Field Surveys. He retired as Chief, Technical Planning Section.

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Roy F. Ferguson, Mid-Continent Mapping Center, retired on August 22, 1980, with nearly 31 years of Federal service.

Mr. Ferguson served in the U.S. Army Air Force from 1943 to 1945. He attended Oklahoma A&M, in Stillwater, graduating in 1949 with a B.S. degree in Geology. He began his Geological Survey career in 1950 in the Branch of Photogrammetry. He left Federal service in 1956 to work in private industry, and returned to the Survey in 1958 as a Civil Engineer. From 1959 to 1961, he was reassigned to the Western Mapping Center. Roy returned to MCMC in 1961 and advanced to the position of Chief, Photogrammetric Operations Section, the position from which he retired.

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Edward D. Jones, Mid-Continent Mapping Center, retired on August 29, 1980, with more than 31 years of Federal service.

Mr. Jones served in the U.S. Navy from 1943 to 1946 He attended the University of Missouri, Columbia, and received a B.S. degree in Agricultural Engineering. He began his career with the Geological Survey in 1952 as a Surveying and Cartographic Engineer

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MCMC RETIREES

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in the Branch of Photogrammetry. His Federal service included assignments in the Branch of Field Surveys, MCMC, 1953-1958; Career Development Program, 1958-60; Branch of Field Surveys, WMC, 1961-63; Branch of Photogrammetry, MCMC, 1963-80; and from March 1980, he served as Chief, Computer Operations Unit, Branch of Plans and Production, MCMC, the position from which he retired.

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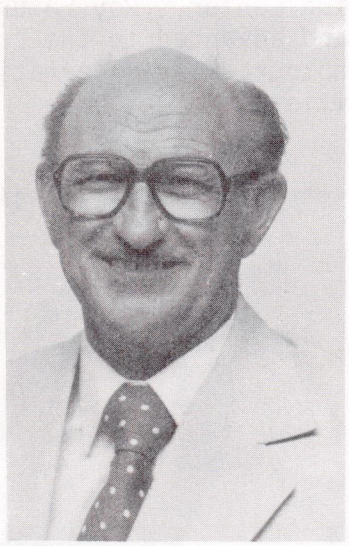

Amos D. Pretzer, Mid-Continent Mapping Center, retired on August 29, 1980, with nearly 37 years of Federal service.

Mr. Pretzer served in the U.S. Army from 1943 to 1946. He began his career with the Geological Survey in 1946 as a field assistant in the Branch of Field Surveys and later that year received an appointment as an Engineering Aid (Topographic). For 16 years, he served on various field assignments throughout the Mid-Continent States.

In 1962, Amos was reassigned to the Geodetic Section of the Branch of Field Surveys, where he served as a Cartographic Technician continuously until his retirement.

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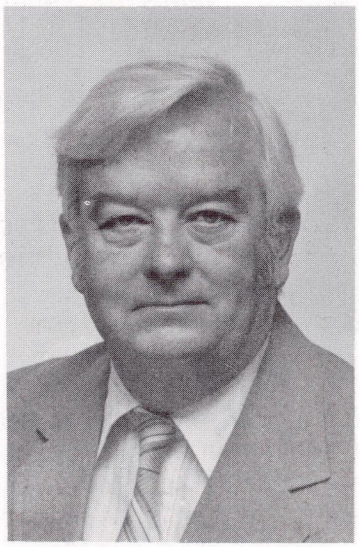

James K. Roberson, Mid-Continent Mapping Center, retired on August 29, 1980, with nearly 34 years of Federal service.

Mr. Roberson served in the U.S. Navy from 1943 to 1946. He began his Geological Survey career in 1948 as a Cartographic Draftsman at Mid-Continent Mapping Center. Ken completed requirements for a B.S. degree in Mining Engineering at the Missouri School of Mines and Metallurgy in 1950 and then rejoined the Survey as a Photogrammetrist in the Branch of Photogrammetry. He gained experience in field mapping operations during the years 1952-56. On reassignment to the Branch of Photogrammetry, Ken advanced through various supervisory positions to that of Assistant Chief, Branch of Photogrammetry, the position from which he retired.

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Betty B. Sands, Mid-Continent Mapping Center, retired on August 29, 1980, with over 31 years of Federal service.

Mrs. Sands began her career with the Geological Survey in 1949 as a Cartographic Draftsman in the Branch of Cartography.

Betty served her entire career in this Branch. She retired as a Cartographic Technician in a Map Editing Unit.

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Raymond L. (Len) Walderich, Mid-Continent Mapping Center, retired on August 29, 1980, with over 33 years of Federal service.

Mr. Walderich served in the U.S. Navy from 1943 to 1946. After receiving his B.S. degree in Geological Engineering from the University of Oklahoma in 1951, he began his career with the Geological Survey at Mid-Continent Mapping Center. In 1962 he transferred to the Rocky Mountain Mapping Center. From 1967 to 1969 Len was in Saudi Arabia for an assignment with the Branch of International Activities. In 1969 he returned to MCMC where he advanced to the position of unit Supervisor in the Branch of Photogrammetry, the position from which he retired.

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AWARDS

SUGGESTIONS

Jerry D. French (P) GS-80-19-M, Foot Switch for Kern Automatic Table
William A. Young (P) GS-80-16-M, Reusing Versatec Electrographic Paper

SPECIAL ACHIEVEMENT

David A. Lenzi
Dwayne Sawyer
Donald Davis
David L. Breuer
Donald L. Dunn
(Outstanding Performance Rating)

QUALITY INCREASE

Charles W. Hicks
(Outstanding Performance Rating)
Brenda L. Lyon
(Outstanding Performance Rating)

SUMMER AID

Joey L. Bartle
Lyndon D. Bartle
Glenna F. Burke
David E. McVey
Tami S. Richardson
Reva J. Turner

PERSONNEL ACTIONS (through Sept. 26)

ACCESSIONS

William C. Good, SC, GS-12, Br. of Photogr., Photogr. Oper. Sect., transferred from Geography Program
Charles R. Kelly II, C, GS-7, Off. of the Chief, Carto. Trainee Group
Rhonda S. Stout, same as above
Dohn L. Jones, CT, GS-9, Br. of Carto., Carto. Sect., Comp. Unit, transfer from RMMC

LOSSES

Roy F. Ferguson, SC, GS-13, optional retirement
Zaddie B. Aston, CT, GS-9, optional retirement
Quentin E. Baker, SC, GS-13, optional retirement
Edward D. Jones, SC, GS-12, optional retirement
Amos D. Pretzer, CT, GS-11, optional retirement
James K. Roberson, SC, GS-13, optional retirement
Betty B. Sands, CT, GS-9, optional retirement
Raymond L. Walderich, SC, GS-12, optional retirement
Gilbert O. Schreiner, CT, GS-11, optional retirement
Donna L. Spurgin, CA, GS-4, resignation

PROMOTIONS

Ronda J. Booker, CA, GS-2, Br. of Carto., Carto. Sect., Comp. Unit, to same, GS-3, same.
Sandra G. Bowling, CT, GS-5, Br. of Carto., Carto. Sect., Comp. Unit, to same, GS-6, same
Albertina M. Ahlstedt, CT, GS-5, Br. of Carto., Carto. Sect., Comp. Unit, to same, GS-6, same
Hyland L. Beydler, Clerk-Typist, GS-2, Br. of Carto., Off. of the Br. Chief, to same, GS-3, same
John A. Kelmelis, C, GS-9, Off. of the Chief, Carto. Trainee Group, to same, GS-11, Br. of Photogr., Photogr. Oper. Sect.
Jon D. Martin, CT, GS-9, Br. of Photogr., Tech. Plan. Sect., Photocontrol Requirements Unit, to same, GS-11, same
James C. Earl, CT, GS-9, Br. of Photogr., Photogr. Oper. Sect., to same, GS-11, same
Daniel J. Finch, same as above
Norman E. Ragan, same as above
Hilda E. Wade, same as above
Carl E. Riley, CT, GS-9, Br. of Photogr., Photogr. Oper. Sect., to same, GS-11, same
Priscilla J. Evans, Secretary (Steno), GS-5, Br. of Carto., Off. of the Br. Chief, to same, GS-6, same
Gerald D. Wilkerson, CA, GS-2, Br. of Carto., Carto. Sect., Comp. Unit, to same, GS-3, Br. of Carto., Off. of the Br. Chief, Digital Line Graphics Group
Lindall J. Baker, CA, GS-4, Br. of Carto., Off. of the Br. Chief, DLGG, to CT, GS-5, same
Alfred E. Niles, C, GS-11, Br. of Carto., Carto. Sect., Editing Unit, to SC, GS-12, Br. of Photogr., Photogr. Oper. Sect.
Arvil C. Harris, C, GS-11, Br. of Photogr., Photogr. Oper. Sect., to SC, GS-12, same
William C. Good from Geography Program, to same, GS-12, Br. of Photogr., Photogr. Oper. Sect.
William B. McComb, Photogr. (S&T), GS-7, Br. of Carto. Photoimagery Sect., to same, GS-9
Gladys M. Conaway, Illustrator (Trainee), GS-4, Br. of Photogr., Photogr. Oper. Sect., to CT, GS-5, same

REASSIGNMENT

Jerold D. Combs, SC, GS-13, Br. of Photogr., Photogr. Oper. Sect., to same, same, Br. of Photogr., Tech. Plan. Sect.

DETAIL (NTE 120 days)

Donald R. Pittillo, CT, GS-9, Br. of Carto., Prep. Sect., to same, Br. of Carto., Carto Sect., Editing Unit

TERMINATION OF DETAIL (NTE 120 days)

Donald R. Pittillo, CT, GS-9, Br. of Carto., Carto. Sect., Comp. Unit, return to same, Br. of Carto., Prep. Sect.

TERMINATION OF DETAIL (NTE 90 days)

Arvil C. Harris, SC, GS-12, Br. of Photogr., Photogr. Oper. Sect, return to C, GS-11, same
Gary W. McKeown, SC, GS-12, Br. of Photogr., Photogr. Oper. Sect., return to C, GS-11, same

OTHER PERSONNEL ACTIONS

John S. McCarty, Sr., Photographer, GS-11, Cartometric Operations Branch, Photography Section, Reston, Virginia, promotion
David Danculovich, Supv. Carto., GS-12, RMMC, FS, Field Dist., promotion
John A. Hinely, Supv. Carto., GS-12 RMMC, FS, Field Dist., promotion
George Perham, Supv. Carto., GS-13, RMMC, P, Ch., Technical Planning Sect. reassignment

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CONCERN ABOUT DENTAL X-RAYS

On the average, Americans receive medical radiation exposures in the 55 milliRoentgen (mR) range every year. But if you had a full X-ray series the last time you visited the dentist, you probably received radiation exposures to the face in the 100 mR range or greater in just one day, according to Dr. John W. McKlveen, a professor of engineering and applied sciences at Arizona State University. Dr. McKlveen

has been conducting experiments to determine the amount of radiation received by dental patients.

Many factors determine the amount of radiation exposure a patient receives. How good is the X-ray unit? What is the size of its cone? Was the patient's head positioned properly? Was a lead apron provided? Was the X-ray unit aimed on target?

For instance, during one panoramic examination, the eyes received much higher exposures than the teeth because the beam was poorly positioned, Dr. McKlveen said. And this patient would have been exposed to even more radiation because the X-ray would have been of poor quality, requiring a retake, he said.

Moreover, if the X-ray equipment has a stub-nosed cone, the radiation will scatter, exposing a wider area, Dr. McKlveen explained. If the cone is long, the radiation tends to expose a much smaller area. Unfortunately, he added, many dentists still prefer the stub-nosed cone because it is easier to aim.

Dr. McKlveen urged both dentists and patients to weight the benefits vs. the risks when deciding whether X-rays are necessary.

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SPORTS

by Gary Raymond

HORSESHOE CHAMPIONSHIP

Champ receives shoe from Chief

John Meyer captured the USGS Horseshoe Pitching Championship at the 1980 annual survey picnic. Sixteen competitors began the double elimination tournament but it narrowed down to the final four of Don Sidwell, Byron Sidwell, Ken Gabel, and John Meyer. Don Sidwell eliminated his son Byron in the consolation bracket and after Meyer handed Gabel his first loss of the day, Gabel defeated Sidwell for the right to meet Meyer for the championship. Former three-time champion Gabel was then defeated by "Old Style" Meyer in the final game 21-16.

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USGS EARLY BIRDS BOWLING NEWS

by Marshall Creight

Yes, the 1980-81 bowling season is upon us. This season we have eight teams competing for 28 nights plus the exciting jackpot-rolloff night at the end of the season. This year the league is divided into quarters, giving the possibility of four teams in the rolloff This will give more teams a chance at the number one slot at the end of the season.

This years league officers include Alle Giebink, President; Sherry Von Klemen, Vice-President; and Marshall Creighton, Secretary-Tresurer.

This years' season began on Sept. 4, 19 with the rolloff-jackpot night schedule for April 9, 1981.

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All in all, 73 bowlers have signed up this year which should guarantee an enjoyable season.

Standings October 4 are:

		Captain
Dirty Digits	29-6	P. Malam
Preparation	24-11	R. Boeding
Okies	19-16	R. Kelly
Strikers	17-18	D. Beasley
Gutter Gropers	16-19	B. Bauch
Hits & Mrs	16-19	J. Conroy
Bozzoes	12-23	J. Belt
Rejects	7-28	G. Grimm

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GOLF NEWS

The 1980 USGS Golf League scrambles championship was won by Ummel's Bums, captained by Otis Ummel. Other team members were Mark Berg, Pat Hensley, John Frank, Ed Hodge, and Neil Schwartz. The Bums won both halves of the golf season so no playoff was necessary to determine the championship. Turner's Turkeys, captained by Jack Turner, finished second in the first half, and No Problem Pars, captained by Bob Cruts, finished second in the second half. Lowest subteam total for the year was a 30, shot by Ummel's Bums (Hensley, Frank, and Hodge) on the first night of the season. Lowest team score for the year was a 66, shot twice by Sawyer's Lucky Seven, and Ummel's Bums, and once by Collier's Big Six and Ogletree's Long Knockers.

The annual golf championship and awards dinner was held on September 5, at the St. James Golf Club. Seventy-one golfers participated in the tournament and 123 people were present for the dinner. The winners of the tournament were Championship Flight - Stan Kirkendall--77; A Flight - Bob Cruts--85; B. Flight - Herple Craine--87; C Flight - Jerry Berry--94; D Flight - Ed Hodge--97; E Flight - John Meyer--104. Closest to the pin winner was H. Craine and longest drive winner was Bob Newkirk. The most improved golfer award went to Neil Schwartz, the best personality award went to Christy Bures and the sportsmanship award went to Hal Ogletree. The duffer award went to Harrison Meaux and the slowest golfer award went to John (Old Style) Meyer.

The 1981 Golf Committee was named: George Cannell, Alfred Niles, Bruce Bauch, and Gary Raymond.

As we reluctantly close the door on another season of USGS League Golf, your 1980 Golf Committee wishes to express many thanks to all who made regular league play, and the St. James tournament a success. We appreciate the fine spirit of cooperation we received from everyone, and look forward to another enjoyable golf season next year.

Your Golf Committee,
Amos Pretzer, Chairman
Jeanice Powell
John Meyer
Luke Hale

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GIRLS SOFTBALL *by Linda McKeage*

On the evening of Tuesday, September 23, two teams of women got together for an evening of softball. One team from the U.S. Geological Survey and one team from the U.S. Forest Service met at the Ber Juan Softball Field for two seven-inning softball games. For the second year in a row these two organizations wanted to "fight it out" through the rough and tough game of softball.

The first game ended with a score of 17-10--USGS the victors. The second game, not ending until close to 10 p.m., had a score of 29-4--again USGS the victors.

The Forest Service did not want to stop there. They requested that the same teams play a third game on another evening. The USGS team, loving the game of softball, agreed. On the following Monday evening, September 29, playing for just one hour instead of seven-innings, our women went undefeated with a score of 24-5.

The women of the USGS should not go unidentified. Several home runs contributed to the victories. Kim Crowell, third base, hit at least two of them the first evening with Theresa Parker, shortstop, hitting her share, and Linda McKeage, second base, hitting one. The remainder of the team were a great asset with Shelley Hood pitching; Pat Borgerding at first base; Darlene Wilson substituting at third base; Sherry Von Klemen catching; Val Jontz at right field; Carolyn Tatum playing at right center; Suzanne Roberson playing at left center; Hylan Beydler at left field; Margaret Scott substituting at left field; and Debbie Schwertz playing third base for the game on September 29.

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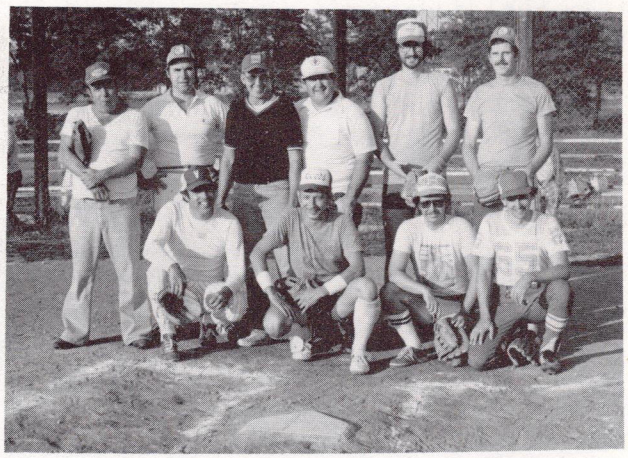
MENS SOFTBALL TOURNAMENT

The USGS softball tourney began on September 15. In the first game Pruett's Pounders defeated Lemen's Long-shots 17-5. The second game was won by Leonard's Drafts over Dake's Sluggers 12-2. In the final game of the night, Dake's Sluggers came from behind to defeat Lemen's Longshots 9-7.

The second round of the tourney was rained out after 1/2 inning of play. The Sluggers beat the Pounders when the second round resumed. Lemen's Longshots pulled the upset of the tourney by beating Leonard's Drafts 13-7, even



1980 MENS SOFTBALL CHAMPS

though short-handed because of injuries. In the final game of the second round the Pounders defeated the Drafts 11-7. In this game, Jeff (Yogi) Goldberg suffered a broken leg in a collision at home plate with Lindy Baker.

The championship game was played on September 29, between Dake's Sluggers and Pruett's Pounders, each team going into the match with identical 2-1 records The Sluggers came through with a 20 to 4 victory.

Final Standings

Dake's Sluggers	3-1
Pruett's Pounders	2-2
Lemen's Longshots	1-2
Leonard's Drafts	1-2

Many thanks to the series umpires--Cork Finley, Homer Crowell, Bruce Bauch, Walter Parkinson, Bob Lemen, and Joey Bartle.

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ANNUAL PICNIC *by Bob Yenzer*

The annual survey picnic was held on Saturday, September 13, at Lions Club Park with about 240 people attending.

Each family brought a covered dish and the social committee furnished barbecue beef and the drinks. Retirees, employees and their spouses and children enjoyed the great variety of food.

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Childrens games were managed by Ted Bare, fishing contest by Ken Holdaway and Jim Earl judged the adults horseshoe pitching contest.

The members of the social committee wish to thank everyone for making the picnic a success.

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